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(71) Applicant (for all designated States except US): **UNIVERSITY OF VIRGINIA PATENT FOUNDATION**  
[US/US]; 250 West Main Street, Suite 300, Charlottesville, VA 22902 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **KIM, Young-Hwan**  
[KR/US]; 2000 Ashemere Drive, Charlottesville, VA 22902 (US). **HERR, John, C.** [US/US]; 895 Old Ballard Road, Charlottesville, VA 22901 (US).

(74) Agent: **SPARKS, Rodney, L.**; University of Virginia Patent Foundation, 1224 West Main Street, Suite 1-110, Charlottesville, VA 22903 (US).

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: **SFEC, A SPERM FLAGELLAR ENERGY CARRIER PROTEIN**

(57) Abstract: The present invention is directed to a sperm flagellar energy carrier protein, SFEC, isolated nucleic acids encoding an SFEC protein or peptide, antibodies specific for the SFEC protein, and the use of the SFEC protein to identify antagonists of SFEC activity. The present invention is also directed to methods of contraception encompassing regulating SFEC expression, levels, and function. SFEC is believed to be essential for sperm motility, is localized to a specific region of the sperm, and thus antagonists of SFEC activity are anticipated to have utility as contraceptive agents.

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## INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/08906

## A. CLASSIFICATION OF SUBJECT MATTER

IPC: C12N 9/10( 2006.01),1/21( 2006.01),15/02( 2006.01),15/63( 2006.01);C07K 16/40( 2006.01),14/435( 2006.01);C07H 21/04( 2006.01);C12Q 1/48( 2006.01);A61K 38/45( 2006.01),39/40( 2006.01),47/00( 2006.01);A01N 43/04( 2006.01)

USPC: 435/15,193,252.3,320.1,325;424/94.5,130.1;514/44,789;530/387.1,350;536/23.2,23.5

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

U.S. : 435/15,193,252.3,320.1,325;424/94.5,130.1;514/44,789;530/387.1,350;536/23.2,23.5

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched  
NONE

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
Please See Continuation Sheet

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 01/12659 A2 (WIEMANN) 22 February 2001 (22.02.2001), SEQ ID NO:779 (1803 bp) is 98.5 % identical to SEQ ID NO:1; the encoded sequence (315 aa) is 100% identical to SEQ ID NO:2.	1-37
X	WO 02/12340 A2 (YUE et al) 14 February 2002 (14.02.2002), SEQ ID NO: 49 (1781 bp) is 98.9 % identical to SEQ ID NO:1; the encoded TRICH-19 protein (315 aa) is 100% identical to SEQ ID NO:2.	1-37

☐ Further documents are listed in the continuation of Box C.

☐ See patent family annex.

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Commissioner for Patents  
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Facsimile No. (571) 273-3201

Authorized officer

Elizabeth Slobodyansky, PhD  
Telephone No. 571-272-1600

*J. Roberts for*

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Continuation of B. FIELDS SEARCHED Item 3:  
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WEST, STN cluster searched (MEDLINE, CAPLUS, BIOSIS, SCISEARCH)  
search terms: translocase adp /atp, carrier protein, human, sequence or gene